

**To:** Miller, Johanna[Miller.Johanna@epa.gov]  
**From:** Garcia, Bert  
**Sent:** Thur 8/20/2015 5:59:49 PM

## **Deliberative Process/Ex. 5**

Bert Garcia

Director, Ecosystems Protection Program

EPA Region 8

**From:** Evans, David  
**Sent:** Tuesday, August 18, 2015 11:40 AM  
**To:** EOC Water; Kopocis, Ken; Hestmark, Martin; Spence, Sandra; Garcia, Bert; Best-Wong, Benita; Wall, Tom  
**Cc:** Weinberg, Anne

## **Deliberative Process/Ex. 5**

Let me know if any questions.

Dave

David Evans

Deputy Director

Office of Wetlands, Oceans and Watersheds

1301 Constitution Ave, Rm. 7130A

202-566-0535

**From:** Weinberg, Anne  
**Sent:** Tuesday, August 18, 2015 10:24 AM  
**To:** Evans, David  
**Cc:** Barry Tonning; [melissa.desantis@tetrtech.com](mailto:melissa.desantis@tetrtech.com); Patty Scott  
**Subject:** FW: Liquid Assets

## Deliberative Process/Ex. 5

**From:** Tonning, Barry [mailto:[barry.tonning@tetrtech.com](mailto:barry.tonning@tetrtech.com)]  
**Sent:** Monday, August 17, 2015 3:10 PM  
**To:** [melissa.desantis@tetrtech.com](mailto:melissa.desantis@tetrtech.com); Weinberg, Anne <[Weinberg.Anne@epa.gov](mailto:Weinberg.Anne@epa.gov)>  
**Subject:** RE: Liquid Assets

Greetings:

Here's a doc that cites the statistic that came out at about the same time:

[http://pubs.usgs.gov/pp/1651/downloads/Vol1\\_combinedChapters/vol1\\_chapB.pdf](http://pubs.usgs.gov/pp/1651/downloads/Vol1_combinedChapters/vol1_chapB.pdf)

## **Introduction**

Thousands of inactive hard-rock mines have left a legacy of acid drainage and toxic metals across mountain watersheds in the western United States. More than 40 percent of the watersheds in or west of the Rocky Mountains have headwater streams in which the effects of historical hard-rock mining are thought to represent a potential threat to human and ecosystem health. In many areas, unmined mineral deposits, waste rock, and mill tailings in abandoned mine lands (AML) may increase metal concentrations and lower pH, thereby affecting the surrounding watershed and ecosystem. Streams near abandoned inactive mines can be so acidic or metal laden that

fish and aquatic insects cannot survive and some bird species are negatively affected by the uptake of metals through the food chain. Although estimates of the number of AML sites vary, observers agree that the scope of this problem is huge, particularly in the western United States where public lands contain thousands of inactive mines

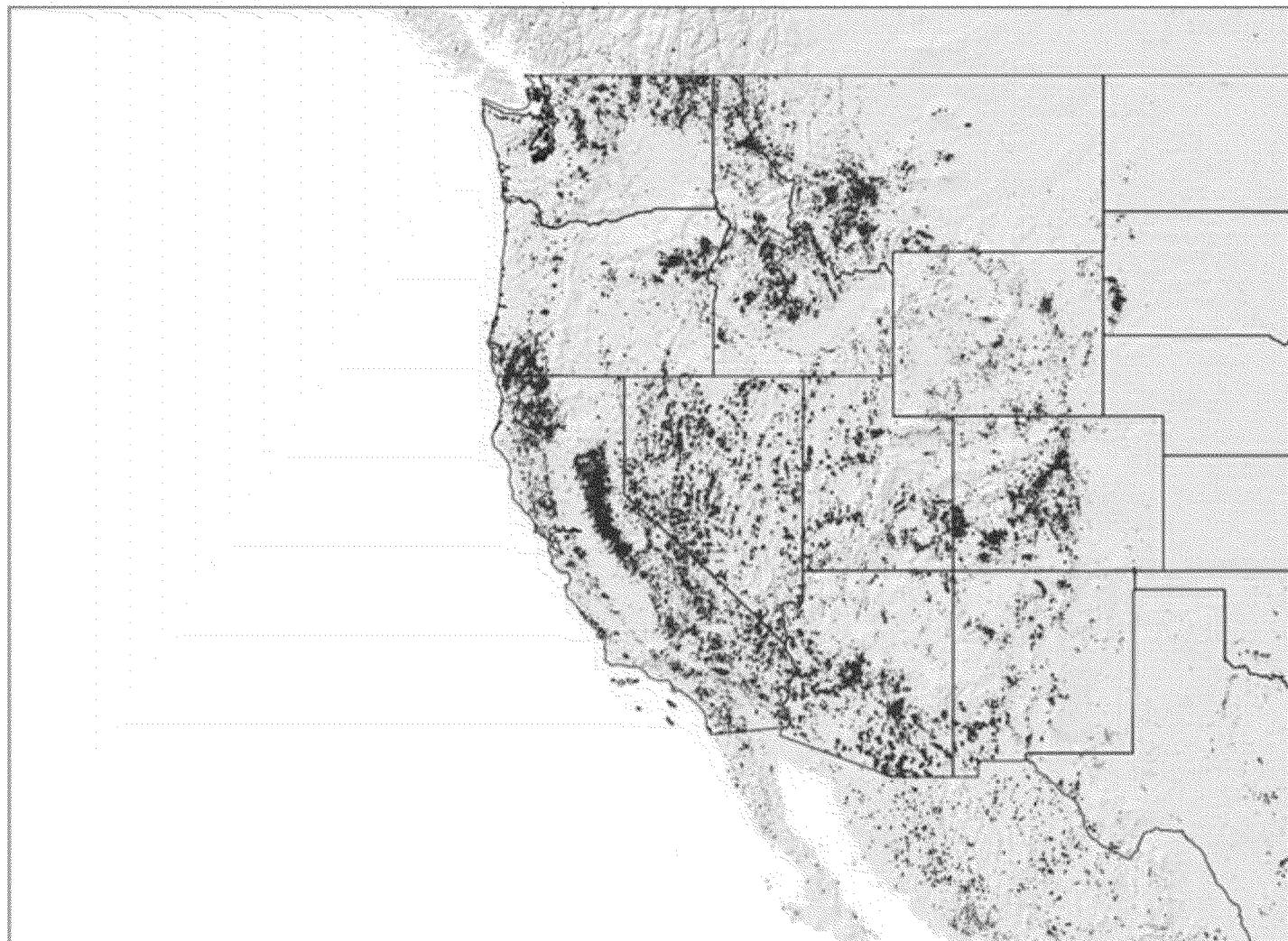
There are a few other USGS docs with similar language.

## **Deliberative Process/Ex. 5**



## Mineral Resources On-Line Spatial Data

Mineral Resources > Online Spatial Data > Mineral Resource Data System > by commodity



**From:** DeSantis, Melissa  
**Sent:** Monday, August 17, 2015 1:10 PM

**To:** Weinberg, Anne <[Weinberg.Anne@epa.gov](mailto:Weinberg.Anne@epa.gov)>; Tonning, Barry <[barry.tonning@tetrtech.com](mailto:barry.tonning@tetrtech.com)>  
**Subject:** RE: Liquid Assets

Anne,

## Deliberative Process/Ex. 5

-Melissa

**From:** Weinberg, Anne [<mailto:Weinberg.Anne@epa.gov>]  
**Sent:** Monday, August 17, 2015 12:04 PM  
**To:** DeSantis, Melissa <[Melissa.Desantis@tetrtech.com](mailto:Melissa.Desantis@tetrtech.com)>; Tonning, Barry <[barry.tonning@tetrtech.com](mailto:barry.tonning@tetrtech.com)>  
**Subject:** Liquid Assets

A question has arisen regarding a statistic cited in a 2000 EPA Report entitled "Liquid Assets 2000: America's Water Resources at a Turning Point"  
(EPA-840-B-00-001).

This stat appears on page 10 of that report:

Mining in the western United States

has contaminated stream reaches in the

headwaters of more than 40 percent of the watersheds in the West. EPA is spending \$30,000 per day to treat contaminated mine drainage at the Summitville Mine in Colorado, which will cost an estimated \$170 million to clean up. Remediation of the half million abandoned mines in 32 states may cost up to \$35 billion or more.

## **Deliberative Process/Ex. 5**

Thanks.